## 3/16/06

## To Whom It May Concern:

RF Monolithics Inc. would like to apply for Limited Modular FCC approval. This letter is our request for such according to FCC public notice DA 00-1407.

## **Modular Transmitter Requirements**

Modular Transmitter Requirements

**Manufacturer Clarification** 

•1) The modular transmitter must have its own RF shielding. This is intended to ensure that the module does not have to rely upon the shielding provided by the device into which it is installed in order for all modular transmitter emissions to comply with Part 15 limits. It is also intended to prevent coupling between the RF circuitry of the module and any wires or circuits in the device into which the module is installed. Such coupling may result in non-compliant operation.	The transmitter is complete with its own rf shielding. The shield is permanently attached to the module's PCB
•2) The modular transmitter must have buffered data inputs (if such inputs are provided). This is intended to ensure that the module will comply with Part 15 requirements in the event of excessive data rates or overmodulation conditions.	The module has a buffered amplifier input for the data input pins on the TX chip.
•3) The modular transmitter must have its own power supply regulation. This is intended to ensure that the module will comply with Part 15 requirements regardless of the design of the power supplying circuitry in the device into which the module is installed.	The module operates on two "coin" battery cells. The battery holder is permanently attached to the module.
•4) The modular transmitter must comply with the requirements of Section 15.203 - the antenna must either be permanently attached or employ a "unique" antenna coupler (at all connections between the module and the antenna, including the cable). The "professional installation" provision of this Section may not be applied to modules. Please note that Section 15.204(c) also applies to modules - any antenna used with the module,	The antenna is permanently soldered to the PCB. The antenna is a ¼ wavelength wire formed into a coil. There is no antenna connector provided on the PCB.

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either at the time of initial	
authorization or through a Class II	
permissive change.	
5) The modular transmitter must	The module was tested as a stand-alone device.
be tested in a stand-alone	There are no AC, DC, or I/O lines. The only
configuration, i.e., the antenna, AC	connection provided is data I/I through the
or DC power, and data	header.
input/output lines must be	
connected to the module, but the	
module must not be inside another	
device during testing. This is	
intended to demonstrate that the	
module is capable of complying	
with Part 15 emission limits	
regardless of the device into which	
it is eventually installed. Unless the	
transmitter module will be battery	
powered, it must comply with the	
AC line conducted requirements	
found in Section 15.207. AC or DC	
power lines and data input/output	
lines connected to the module must	
not contain ferrites, unless they will	
be marketed with the module (see	
Section 15.27(a)). The length of	
these lines shall be the length	
typical of actual usage or, if that	
length is unknown, at least 10	
centimeters to insure that there is	
no coupling between the case of the	
module and supporting equipment.	
Any accessories, peripherals, or	
support equipment connected to	
the module during testing shall be	
unmodified or commercially	
available (see Section 15.31(i)).	
•6) The modular transmitter must	The modular transmitter is inscribed with its own
be labeled with its own FCC ID	unique FCC ID. Instruction is given in the OEM
number, and, if the FCC ID is not	manual as to labeling requirements.
visible when the module is installed	mandar as to raceming requirements.
inside another device, then the	
outside of the device into which the	
module is installed must also	
display a label referring to the	
enclosed module. This exterior	
label can use wording such as the	

following: "Contains Transmitter Module FCC ID: XYZMODEL1" or "Contains FCC ID: XYZMODEL1." Any similar wording that expresses the same meaning may be used. The Grantee may either provide such a label, an example of which must be included in the application for equipment authorization, or, must provide adequate instructions along with the module which explain this requirement. In the latter case, a copy of these instructions must be included in the application for equipment authorization.	
•7) The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization. For example, only cordless phones are permitted to operate under Section 15.233, thus, a module authorized under this Section would be limited to use in cordless phones and the instructions provided with the device must explain this limitation.	The module meets all of the requirements of FCC Part 15, Subpart C. The device operates specifically under 15.249.
•8) In the case of a modular transceiver, the modular approval policy only applies to the transmitter portion of such devices. Pursuant to Section 15.101(b), the receiver portion will either be subject to Verification, or it will not be subject to any authorization requirements (unless it is a Scanning Receiver, in which case it is also subject to Certification,	The device is not a transceiver but is a transmitter.

pursuant to Section 15.101(a)).	
•9) FCC Rules in Sections 2.1091,	The device operates under 15.249 with an rf
2.1093 and specific Sections of Part	power of 0.75 mW. This device is not subject to
15, including 15.319(i), 15.407(f),	routine rf exposure evaluation.
15.253(f) and 15.255(g), require	
that Unlicensed PCS, UNII and	
millimeter wave devices perform	
routine environmental evaluation	
for RF Exposure to demonstrate	
compliance. In addition, spread	
spectrum transmitters operating	
under Section 15.247 are required	
to address RF Exposure	
compliance in accordance with	
Section 15.247(b)(4). Modular	
transmitters approved under other	
Sections of Part 15, when	
necessary, may also need to address	
certain RF Exposure concerns;	
typically by providing specific	
installation and operating	
instructions for users, installers	
and other interested parties to	
ensure compliance.	